

What is claimed is:

1. A rocker arm capable of being driven by a cam for selectively opening and closing a valve mounted on a cylinder head of a combustion engine, which rocker arm comprises:

a generally elongated arm body having first and second ends opposite to each other and prepared by bending a single plate material to represent a generally inverted U-shaped section including opposite side walls and a connecting wall bridging between the opposite side walls, an end portion of the connecting wall adjacent the second end of the arm body being formed with an internally helically threaded hole for threadingly receiving therein an externally helically threaded pivot member;

a cam follower roller rotatably mounted on a portion of the arm body generally intermediate between the first and second ends thereof for engagement with the cam; and

a valve drive element mounted on the first end of the arm body for driving the valve;

wherein an outer chamfered corner delimited between an outer surface of the connecting wall and an outer surface of each of the opposite side walls and formed by bending is deformed to represent a plastically deformed portion so formed by means of a plastic deformation technique that the outer chamfered corner represents a small radius of curvature.

2. The rocker arm as claimed in Claim 1, wherein the radius of curvature of the outer chamfered corner delimited between the outer surface of the connecting wall and the outer surface of each of the opposite side walls is smaller than a wall thickness of the arm body.

3. The rocker arm as claimed in Claim 2, wherein the radius of curvature of the outer chamfered corner delimited between the outer surface of the connecting wall and the outer surface of each of the opposite side walls is smaller than 70% of the wall thickness of the arm body.

4. The rocker arm as claimed in Claim 1, wherein respective portions of inner surfaces of the opposite side walls adjacent the internally helically threaded hole are formed with corresponding helical threads and wherein the helical threads occupy respective parts of a cylindrical extension of the internally helically threaded hole for threadingly receiving the externally helically threaded pivot member which has passed through the internally helically threaded hole.

5. The rocker arm as claimed in Claim 1, further comprising a lock nut fastened to the externally helically threaded pivot member then threadingly engaged in the internally helically threaded hole in the connecting wall and wherein an outer flat surface area of the connecting wall delimited between the plastically deformed portions, which is adjacent the internally helically threaded hole, has a width about equal to an outer diameter of the lock nut.

6. A rocker arm capable of being driven by a cam for selectively opening and closing a valve mounted on a cylinder head of a combustion engine, which rocker arm comprises:

a generally elongated arm body having first and second ends opposite to each other and prepared by bending a single plate material to represent a generally inverted U-shaped section including opposite side walls and a connecting wall bridging between the opposite side walls, the second end of the arm body being formed with an internally helically threaded hole for threadingly receiving therein an externally helically threaded valve drive member;

a pivot fulcrum defined in a portion of the arm body generally intermediate of the length thereof; and

a cam follower roller rotatably mounted on the first end of the arm body for engagement with the cam;

wherein an outer chamfered corner delimited between an outer surface of the connecting wall and an outer surface of each of the opposite side walls and formed by bending is deformed to represent a plastically deformed portion so

formed by means of a plastic deformation technique that the outer chamfered corner represents a small radius of curvature.

7. The rocker arm as claimed in Claims 6, wherein the radius of curvature of the outer chamfered corner delimited between the outer surface of the connecting wall and the outer surface of each of the opposite side walls is smaller than a wall thickness of the arm body.

8. The rocker arm as claimed in Claim 7, wherein the radius of curvature of the outer chamfered corner delimited between the outer surface of the connecting wall and the outer surface of each of the opposite side walls is smaller than 70% of the wall thickness of the arm body.

9. The rocker arm as claimed in Claim 6, wherein respective portions of inner surfaces of the opposite side walls adjacent the internally helically threaded hole are formed with corresponding helical threads and in that the helical threads occupy respective parts of a cylindrical extension of the internally helically threaded hole for threadingly receiving the externally helically threaded valve drive member which has passed through the internally helically threaded hole.

10. The rocker arm as claimed in Claim 6, further comprising a lock nut fastened to the externally helically threaded valve drive member then threadingly engaged in the internally helically threaded hole in the connecting wall and wherein an outer flat surface area of the connecting wall delimited between the plastically deformed portions, which is adjacent the internally helically threaded hole, has a width about equal to an outer diameter of the lock nut.

11. A rocker arm capable of being driven by a cam for selectively opening and closing a valve mounted on a cylinder head of a combustion engine, which rocker arm comprises:

a generally elongated arm body having first and second ends opposite to each other and prepared by bending a single plate material to represent a generally U-shaped section including opposite side walls and a connecting wall bridging between the opposite side walls, an end portion of the connecting wall

adjacent the second end of the arm body being formed with a pivot abutment area to which a free end of a pivot support member is engaged;

a cam follower roller rotatably mounted on a portion of the arm body generally intermediate between the first and second ends thereof for engagement with the cam; and

a valve drive element mounted on the first end of the arm body for driving the valve;

wherein an outer chamfered corner delimited between an outer surface of the connecting wall and an outer surface of each of the opposite side walls and formed by bending is deformed to represent a plastically deformed portion so formed by means of a plastic deformation technique that the outer chamfered corner represents a small radius of curvature.

12. The rocker arm as claimed in Claim 11, wherein the radius of curvature of the outer chamfered corner delimited between the outer surface of the connecting wall and the outer surface of each of the opposite side walls is smaller than a wall thickness of the arm body.

13. The rocker arm as claimed in Claim 12, characterized in that the radius of curvature of the outer chamfered corner delimited between the outer surface of the connecting wall and the outer surface of each of the opposite side walls is smaller than 70% of the wall thickness of the arm body.